

# *re*VISION

Action Grant

*Columbus Public Schools Application*

2020-2021

OFFICE OF CAREER, TECHNICAL, AND ADULT EDUCATION

NEBRASKA DEPARTMENT OF EDUCATION

301 Centennial Mall South, Lincoln, NE 68508



## **Section 1: Application Overview**

Columbus Public Schools (CPS) and its partners have worked collaboratively since 2010 to identify and meet local labor market needs. Throughout the reVISION Perkins V Local Needs Assessment and a reVISION Initial Grant enabled us to conduct an in-depth assessment, leading to an initial focus on five Pathway Programs: Advanced Manufacturing Design Technology and Engineering, Automotive Repair and Auto Body Technology, Construction Technology, Mechatronics/Electrical Mechanical/Robotics, and Welding Technology.

In 2014, Columbus voters approved a \$49.9M bond issue to build a new high school with an emphasis on STEM education. The new Columbus High School (CHS) and STEM Academy opened in March 2017.

The long-term goals of the STEM Academy are:

1. Effectively align career and technical education (CTE) with the local labor market needs to equip students with 21st century skills and prepare them for high-demand occupations in high-growth industry sectors.
2. Develop a strong collaboration among CPS and post-secondary institutions, employers, and industry partners to improve the quality of CTE programs and the workforce.
3. Provide accountability for improving academic outcomes and technical and employability skills.
4. Emphasize innovative practices supported by systematic reform of state policies and practices to support CTE implementation.

If awarded the reVISION Action Grant, it will enable CPS to improve and expand its Skilled and Technical Science offerings for high school education. This project will help increase students' skills and talents in manufacturing, engineering and mechatronics careers, thereby strengthening rural Nebraska's talent pipeline and our state's economy.

Columbus is a major manufacturing hub in northeast Nebraska. Manufacturing is the city's largest industry sector and a growing number of available jobs in the Columbus area are STEM-related. According to Nebraska Department of Labor (NDOL) and Northeast Nebraska Economic Development District (NNEEDD) data, the manufacturing industry employs the highest number of employees and will be the top job industry expected in northeast Nebraska by the year 2024.

According to the Department of Labor's Office of Labor Market Information's H3 data, Machinists and Industrial Machinery Mechanics allow for 25% job growth with a projected 111 additional job openings within the next 6 years. In May 2020, there were 250 openings in Platte County in the area of manufacturing.

Hands-on experiences are vital to introducing STEM concepts to students and to piquing their interest in STEM-related careers. These kinds of experiences can be difficult and too costly to provide in the real world; however, this is not the case in the virtual world. Virtual Reality (VR) has the ability to bring STEM subjects to life. VR sparks students' imaginations. It enables and empowers students to learn and to apply their knowledge in the real world. It appeals to more, and a greater diversity of students, giving them insight to various STEM careers.

A robust manufacturing sector is critical for a strong local, state, and national economy. The district has been working collaboratively with local partners since 2010 to identify business, industry, and workforce needs, to determine how Columbus Public Schools can help meet those needs. In 2010, a STEM Advisory

Committee was formed to conduct local and regional employer analysis, economic and labor market analysis, economic industry and career cluster analysis, and extensive community engagement. This in-depth assessment led to the development of a STEM Academy within Columbus High School with an initial focus on five pathway programs: Advanced Manufacturing Design Technology and Engineering, Automotive Repair and Auto Body Technology, Construction Technology, Mechatronics/Electrical Mechanical/Robotics, and Welding Technology.

## **Section 2: Key Objectives**

### **Project Goals**

When completing the bond issue to build a new high school, the community and industry donated over \$1 million to develop certain programs such as machining and automotive technology. With the initial investment, only certain programs were able to be accommodated and others required attention. Throughout the STEM implementation, alignment to pathways and post-secondary opportunities has been a priority. Additionally, within the programs, providing students opportunities beyond the classroom as well as having a focus on career development have been prioritized.

Upon completion of the Local Perkins Application, action steps were identified that needed to be completed to keep our programs current with business and industry. Under Element 2: Local Workforce Alignment, one goal stated, “To provide the best experiences for our students and to sustain a program to stay at the forefront of STEM education.” To achieve this goal, updating, upgrading and purchasing industrial grade equipment is essential.

For the 2020-21 school year, Columbus Public Schools continued its commitment to STEM with the addition of a new teacher in the STS department. With an additional staff member and a potential of 80 more students a day completing projects such as 3D printing, it was determined that five additional 3D printers will be needed. With this grant, CHS will be purchasing these 3D printers along with desktop computers to be utilized in our Engineering Lab. These printers will give students the hands-on experience needed to be able to draw parts and print them to test their effectiveness.

To keep current with technology and the rapidly evolving technology of virtual reality, we will purchase five Oculus Rift VR headsets, five iPads for VR simulations for students and two welding simulators. This will allow us the opportunity to have students interact with a wide variety of careers and experiences beyond what CHS and Columbus has to offer. With the current COVID circumstances, having the mobility to bring industry to the students will be vital. The VR equipment will also provide us the experiences in a number of ways, including engineering, manufacturing, welding, construction and beyond.

To also help provide more experiences in introductory courses to align with other pathways, CHS will purchase two welding simulators for students to practice basic welding skills and gain career knowledge. With limited classroom space and consumables for students, welding simulators provide meaningful lessons in a non-traditional setting.

Within our engineering program, students learn the drafting software AutoCad and SolidWorks. They use these programs to design a variety of different parts for manufacturing and floor plans for the architecture design classes. Currently, each computer utilizes a basic mouse. To be aligned with industry standards, each computer needs a mouse with a precise tracking sensor and programmable buttons. This hardware will be more aligned with industry and enable students to effectively draft their projects in an efficient manner. With the addition of the mice, a Ricoh Large Format Printer will also be purchased and utilized in our drafting lab. These prints are needed to take to our construction job sites as well as our machining lab to accurately produce the work that has been planned and drafted.

Under Element 3: Size, Scope and Quality in the Local Perkins Application, another goal is to purchase Festo mechatronics equipment to upgrade the current mechatronics lab setting. While the stand-alone application provides the equipment, this grant will be utilized to update the FluidSim software that students simulate pneumatic circuits. This software allows students to have the hands-on skills needed to successfully program circuits that is used in industry. Currently, the software in the mechatronics lab is 10 years old and is not current on the ever-changing world of technology, electronics and manufacturing.

Also, within the mechatronics program, Columbus High School has a robust and competitive Robotics program. This is driven and supported by local industry in the Columbus area. Currently our programmable robots are dated. With the reVISION Action Grant, funds are allocated to purchase new Vex Classroom bundles. By preparing our first-year robotics students with new equipment and software, it will directly lead to the new Robotics 3 course. These additions to the mechatronics and robotics programs align with the approved Local Perkins Application which includes programming an underwater drone that was donated by the U.S. Navy.

With all of the new additions brought to our school with this grant, we are furthering our commitment to the local workforce community by preparing students for their next steps after high school. Whether a student's goal is straight into the workforce or going onto a post-secondary option, these improvements into our CTE areas will vastly improve our students' knowledge and preparedness for their next steps. The industry is ever changing and as a school we have made a commitment to keep up with the trends as they advance. Columbus has a vast manufacturing industry and these skills we are teaching students are much needed and desired by the local businesses. It is imperative that we stay current on the trends and advances to meet the local demand. Columbus's current workforce needs are extensive as there are more available jobs than there are skilled workers in the area. At Columbus Public Schools, our goal is to prepare, partner, and help provide for our local community.

### **Section 3: Project Activities**

#### **1. Update Mechatronics Lab - Mechatronics FluidSim Software/ Vex V5 Classroom Superbundle**

**Narrative:** In our Local Perkins Application, under Element 3, Size, Scope and Quality, we set a goal to purchase Festo mechatronics equipment to upgrade the current mechatronics lab setting. By upgrading the current software to the newest version, we will be on track to purchase the equipment necessary to fully upgrade the lab. Under the Local Perkins Application, it was approved to purchase new equipment under Year 1.

Under Element 2, Local Workforce Alignment in our Local Perkins Applications, CPS will expand robotics and drone technology in classrooms for robotics, construction and agricultural integration with an emphasis on career opportunities in these areas. With this purchase, it will allow us to update to current systems and program sensors that are compatible with modern industry standards. Additionally, the new robotics components will also help transition into a new aspect of the robotics program. In partnership with the U.S. Navy, we are incorporating underwater drones in the robotics curriculum. These components, with the Vex V5 robot kits and underwater drone, will play a vital role achieving our goal in aligning our CTE programs, updating to current standards, and developing industry-ready skills with our students.

Also, under Element 2, Local Workforce Alignment, it was stated that CHS will upgrade industry standard equipment as necessary. The current mechatronics software that is being utilized in our lab is out of date and not up to industry standards.

Evaluation: After completing the Mechatronics 1 course at CHS, students will be proficient in reading industry standard prints that are created by utilizing the FluidSim software. The purchase of this software matches the overall goals of this grant and the Local Perkins Application application by staying current with industry standards and keeping our CTE programs aligned with these standards. Furthermore, by updating the mechatronics lab setting as a whole, we are able to provide a work-based experience to students. By December 2020, the classroom bundles will be purchased and implemented into the Robotics program at CHS. This will meet our goal under Element 2, Local Workforce Alignment, in expanding robotics and drone technology in classrooms for robotics, construction and agricultural integration with an emphasis on career opportunities in these areas.

Sustainment: The purchase of this software is a one-time expense will be licensed through CPS and is loaded locally on our computers. With the work of the CPS Foundation, Columbus High School, our partnerships with local industry such as BD Medical, and post-secondary institutions with Central Community College, guidance and resources have been provided to continually reevaluate and keep our mechatronics program at the forefront of STEM education. Additionally, any costs associated with maintenance and supplies will be supported by Columbus Public Schools, Columbus Public Schools Foundation and local industry partners.

Project Timeline: The purchase and installation of the software will be completed by December 2020. Mechatronics Instructor, Adam Whitmore, will be responsible for the installation of the software. Additionally, the purchase of the Vex classroom bundle will be carried out through the same timeline of December 2020. Mr. Whitmore will be responsible for the implementation of the robotics kits into the Robotics curriculum as well.

## **2. Update Engineering Lab - Makerbot Method 3D Printer, Makerbot Replicator Z18 3D printer and desktop computers**

Narrative: Under Element 2, Local Workforce Alignment in our Local Perkins Application, Columbus Public Schools stated that we will upgrade industry standard equipment as necessary. New to this school year, CHS added an additional staff member to teach in the STS department. With this staff member, more Engineering courses are being taught and with the limited amount of equipment, there is a strain on the student interactions and projects that can be completed. We plan to use grant funds to purchase four Makerbot 3D printers, one Makerbot Replicator Z18 3D printer and two desktop computers to compliment the printers. Also by upgrading to new technology and purchasing one larger 3D printer, students are able to utilize the latest technology as well as 3D print larger projects. The Replicator 3D printer will also be able to print additional materials such as bronze, copper, and wood, giving the students a wider range of projects that they will be able to complete.

Evaluation: Once the 3D printers are installed and purchased, they will be utilized by the Engineering and drafting students. With the ability to create physical and moving projects, this will give the students a real-world application into the manufacturing and drafting industries. These printers will help bridge the

gap between a new staff member and the number of students having the ability to take the STS courses. This will support our overarching goal of supporting aligning CTE programs and systematic career development as well as keeping our equipment up to date with industry standards.

Sustainment: These 3D printers will be purchased outright. Any costs associated with maintenance, supplies and consumables will be supported by Columbus Public Schools, the Columbus Public Schools Foundation, and local industry such as Behlen Manufacturing.

Project Timeline: Purchase and install hardware and software by December 2020. Joe Krysl will be responsible for the installation of the software and use of the 3D printers.

### **3. Update Drafting Lab - Ricoh Large Format Printer and Programmable Engineering Mice**

Narrative: At Columbus High School, we currently offer students a drafting program that is unmatched in most high schools and post-secondary institutions. In this lab setting, students gain industry knowledge in software such as SolidWorks and AutoCad. In keeping our programs industry-level and to provide unique, career ready skills, having the ability to transfer student drawings to print is critical. With the purchase of an industry-standard printer, students would then have the ability to read schematics, transfer their measurements to the appropriate machine, then reproduce their drawing in physical form. This printer will also connect our Architecture Design course to our Advanced Construction course. In partnership with a local contractor, Design Build by Shelby Lumber, the Advanced Construction students will be building a house under the direction of a CHS teacher. The students will be able to utilize this printer through the designs created by the drafting program. The Ricoh Large Format Printer will be purchased locally from Eakes Office Supply.

To further enhance our drafting lab, the addition of an engineering mouse to each computer is budgeted. An engineering mouse is specially made for 3D modeling and allows you to move in six directions, giving a person the best control when creating large 3D drawings and assemblies. These prints are transferred into 3D print creations, molds for the machine area and creating floor plans in the construction field. SolidWorks uses the buttons on the mouse to set up hotkeys, to save students time when working with large assembly prints. The mouse is also designed for efficiency and comfort to allow students to work at the computer for longer periods of time.

This activity is aligned under Element 2, Local Workforce Alignment in our Local Perkins Application to upgrade industry standard equipment as necessary to be utilized for career development and aligning our CTE programs.

Evaluation: At Columbus Public schools our mission and goal is “Engaging All Learners to Achieve Success”. This printer will help engage students to create and showcase their skills by assembling a portfolio to show to future employers. The mice will create a real-world application for the students and create a more ergonomic environment.

Sustainment: This printer and mice will be purchased outright. Any costs associated with maintenance and supplies will be supported by Columbus Public Schools and its local business partners.

Project Timeline: Purchase and install hardware by December 2020. Joe Krysl will be responsible for the installation of the hardware.

#### **4. Oculus Virtual Reality Simulators, RealityWorks Welding Simulators, iPads, and Applications**

Narrative: The 2020-21 school year will look different than in the past. Columbus High School has a vast network of business and industry partners that are willing to come into our school as guest speakers as well as host us on industry tours whenever possible. However, those options are limited. Virtual reality provides the options and connections for teachers and students to gain real world experience without having to leave the classroom. In partnerships with NPPD and CCC, students will be able to explore different career and post-secondary opportunities with guided paths towards in-demand jobs. For example, in the automotive program, students will be able to virtually take apart a motor or practice a virtual paint booth, without having the travel, expenses, or worry about availability. Opportunities exist for expansion with virtual reality in numerous other areas such as career education and development, health sciences, robotics, and engineering. In the grant, our plan is to purchase five virtual reality simulators, five iPads, and two RealityWorks welding simulators. We also have built in a budget to purchase stand-alone virtual reality applications to be installed on the VR simulators and iPads for student use.

This activity is directly connected to our goals in Element 2, 3, and 6 in CPS's Local Perkins Application. Under Element 2, Local Workforce Development, a goal is to research and purchase a welding simulator for classes targeting special populations such as English Language learners and females. Under Element 3, Size, Scope and Quality, a goal is to research and purchase virtual reality simulators for automotive, construction, and engineering. Under Element 6 Work Based Learning, a goal is to provide students with experience with guest speakers, field trips, job shadows, and other industry related opportunities. The purchase of virtual reality simulators, iPads, and applications will help us achieve these goals. In the current times, Element 6 goal is difficult to achieve with the pandemic reality. The virtual reality simulators are a great solution to the current situation.

Furthermore, utilizing all of the virtual reality equipment into our career seminar course will be a huge benefit to all of our Freshman students. This will address our commitment to special populations, specifically EL and nontraditional students. Each student will be able to interact with different careers and scenarios in a virtual environment. This takes the intimidation away from those special populations that may be timid to try something out of their comfort zone.

We also plan to utilize the equipment in Columbus Public Schools Foundation Stem on the Go! Trailer. This partnership will benefit both organizations in a multitude of ways. For one, exposing middle school students to scenarios and potential careers early on, helps students begin planning for their future and begin planning what classes will be most beneficial to them to take during high school. We also plan to utilize the Stem on the Go! Trailer as well as the virtual reality equipment during the CPS's counseling office Career Night, where business and industry are invited to the high school on a one-night event where they are promoting what they have to offer students upon graduation from high school. High school students will also be able to showcase their talents in the classroom by displaying and presenting

their work during their courses at the high school. This directly links our high school programming to the future job market.

Evaluation: All of the virtual reality simulators, the welding simulators, iPads and applications will be purchased throughout the 2020-21 school year, with implementation into numerous STS courses throughout the year. Approximately, 300 students will be able to utilize this equipment within the year.

Sustainment: All of the virtual reality simulators, the welding simulators, iPads and applications will be purchased outright with no sustaining fees. Any additional fees or services will be maintained by Columbus Public Schools, Columbus Public Schools Foundation and its local business and industry partners.

Project Timeline: Purchase and install hardware and software by December 2020. Stephanie Carlson will be responsible for the installation of the software and hardware. The virtual reality equipment will be used in classrooms and showcased during the Career Night February 2021.

## **5. Fiscal Management**

The management of the finances for the reVISION Action Grant will be handled by the Columbus Public Schools Foundation. Money budgeted for Administrative Services will be directed to the foundation.

### **Section 4: Commitment & Capacity**

#### **Leadership Team and Advisory Council Members**

Mr. Jason Schapmann- Assistant Principal, Columbus High School  
Mr. David Hiebner- Principal, Columbus High School  
Mr. Adam Whitmore- Mechatronics/Engineering Instructor, Columbus High School  
Mr. Joe Krysl- Drafting/Engineering Instructor, Columbus High School  
Mrs. Stephanie Carlson- CPS Career Coordinator  
Mrs. Nicole Anderson- CPS Foundation Director  
Dr. Troy Loeffelholz- CPS Superintendent  
Ms. Kara Asmus- Columbus Chamber of Commerce  
Ms. Jen Knowlton- Behlen Manufacturing

Nicole Anderson and the Columbus Public Schools Foundation will serve as the fiscal agent for the grant. Expenditures at the high school level will be handled by Jason Schapmann and David Hiebner. They will be responsible for securing all the bids as well as purchasing the materials listed in the activities above.

Joe Krysl and Adam Whitmore and Stephanie Carlson will serve as the implementation leaders for the four activities listed. Mr. Krysl will be responsible for Activities #2 and #3 and Adam Whitmore will be responsible for Activity #1. Stephanie Carlson will be responsible for implementing Activity #4.

Nicole Anderson, Troy Loeffelholz, Kara Asmus and Jen Knowlton will serve as advisory board members specifically for this Action Grant. They have been instrumental in guiding Columbus Public Schools

decisions and policies to best serve our student population as well as linking the school district to business and industry.

Once awarded, the team will continue to meet on an annual basis to discuss the proposed project timeline as well as any outstanding issues that may present itself during the duration of the grant.

Columbus Public Schools has obtained letters of support from local business and industry to support all the activities in the proposed project. They are attached as appendixes to the grant application.

<b>Activity Budget: Activity #1 – Mechatronics Lab</b>		
<b>Expenditure</b>	<b>Unit Cost</b>	<b>Total</b>
<b>Salaries – Specified by Position (Object Code 100)</b>		
<i>Subtotal</i>		
<b>Employee Benefits – Specified by Position (Object Code 200)</b>		
<i>Subtotal</i>		
<b>Professional &amp; Technical Services – (Object Code 300)</b>		
<i>Subtotal</i>		
<b>Other Purchased Professional Services – (Object Code 400/500)</b>		
<i>Subtotal</i>		
<b>Supplies— including Operational Equipment - (Object Code 600)</b>		
Mechatronics FluidSim-Pneumatics V5- 22 Seat Software License – purchase through Mid-West 3D Solutions- installed locally	\$13,600	\$13,600
<i>Subtotal</i>		\$13,600
<b>Capital Assets– (Object Code 700)</b>		
Vex Robots V5 Classroom Super Bundle – 2 sets	\$8,000	\$16,000
<i>Subtotal</i>		\$16,000
<b>ACTIVITY TOTAL</b>		<b>\$29,600</b>

<b>Activity Budget: Activity #2 – Engineering Lab</b>		
<b>Expenditure</b>	<b>Unit Cost</b>	<b>Total</b>
<b>Salaries – Specified by Position (Object Code 100)</b>		
	<i>Subtotal</i>	
<b>Employee Benefits – Specified by Position (Object Code 200)</b>		
	<i>Subtotal</i>	
<b>Professional &amp; Technical Services – (Object Code 300)</b>		
	<i>Subtotal</i>	
<b>Other Purchased Professional Services – (Object Code 400/500)</b>		
	<i>Subtotal</i>	
<b>Supplies— including Operational Equipment - (Object Code 600)</b>		
	<i>Subtotal</i>	
<b>Capital Assets– (Object Code 700)</b>		
Makerbot Method 3D Printer and Accessories- Product Code 900-0001A – 4 units	\$5,200	\$20,800
Makerbot Replicator Z18 3D Printer- Product Code 900-0004A	\$8,750	\$8,750
Dell 7000 Series Desktop Computer with updated graphics card for Oculus Rift S VR – 2 computers	\$3,000	\$6,000
	<i>Subtotal</i>	\$35,550
	<b>ACTIVITY TOTAL</b>	<b>\$35,550</b>

<b>Activity Budget: Activity #3 - Drafting Lab</b>		
<b>Expenditure</b>	<b>Unit Cost</b>	<b>Total</b>
<b>Salaries – Specified by Position (Object Code 100)</b>		
<i>Subtotal</i>		
<b>Employee Benefits – Specified by Position (Object Code 200)</b>		
<i>Subtotal</i>		
<b>Professional &amp; Technical Services – (Object Code 300)</b>		
<i>Subtotal</i>		
<b>Other Purchased Professional Services – (Object Code 400/500)</b>		
<i>Subtotal</i>		
<b>Supplies— including Operational Equipment - (Object Code 600)</b>		
Logitech MX518 Programmable Engineering Mice – 22 units	\$75	\$1,650
<i>Subtotal</i>		\$1,650
<b>Capital Assets– (Object Code 700)</b>		
Ricoh MP CW2201SP-RS – Wide Format Color Printer	\$9,660	\$9,660
<i>Subtotal</i>		\$9,660
<b>ACTIVITY TOTAL</b>		<b>\$11,310</b>

<b>Activity Budget: Activity #4 – Welding Simulator/Virtual Reality</b>		
<b>Expenditure</b>	<b>Unit Cost</b>	<b>Total</b>
<b>Salaries – Specified by Position (Object Code 100)</b>		
<i>Subtotal</i>		
<b>Employee Benefits – Specified by Position (Object Code 200)</b>		
<i>Subtotal</i>		
<b>Professional &amp; Technical Services – (Object Code 300)</b>		
<i>Subtotal</i>		
<b>Other Purchased Professional Services – (Object Code 400/500)</b>		
<i>Subtotal</i>		
<b>Supplies— including Operational Equipment - (Object Code 600)</b>		
Oculus Rift S Virtual Reality Simulators – 5 units	\$500	\$2,500
Apple iPad Pro for virtual/augmented reality – 11 inch, 256GB – 5 iPads	\$900	\$4,500
Brenthaven iPad Protective Cases – 5 cases	\$80	\$400
Virtual Reality Apps (i.e. Medical Simulations, Wrench)	\$1,000	\$1,000
<i>Subtotal</i>		\$8,400
<b>Capital Assets– (Object Code 700)</b>		
guideWELD VR Mig and Stick welding simulator - model number 56010111 – 2 units	\$7,200	\$14,400
<i>Subtotal</i>		\$14,400
<b>ACTIVITY TOTAL</b>		<b>\$22,800</b>

<b>Activity Budget: Activity #5 – Administrative Costs</b>		
<b>Expenditure</b>	<b>Unit Cost</b>	<b>Total</b>
<b>Salaries – Specified by Position (Object Code 100)</b>		
	<i>Subtotal</i>	
<b>Employee Benefits – Specified by Position (Object Code 200)</b>		
	<i>Subtotal</i>	
<b>Professional &amp; Technical Services – (Object Code 300)</b>		
Columbus Public Schools Foundation – Administrative Services	\$740	\$740
	<i>Subtotal</i>	\$740
<b>Other Purchased Professional Services – (Object Code 400/500)</b>		
	<i>Subtotal</i>	
<b>Supplies— including Operational Equipment - (Object Code 600)</b>		
	<i>Subtotal</i>	
<b>Capital Assets- (Object Code 700)</b>		
	<i>Subtotal</i>	
	<b>ACTIVITY TOTAL</b>	<b>\$740</b>

## Budget Summary

Salaries		
	<i>Subtotal</i>	\$ ___-__
Employee Benefits		
	<i>Subtotal</i>	\$ ___-__
Professional & Technical Services		
Activity 5		\$_740_
	<i>Subtotal</i>	\$_740_
Other Purchased Services		
	<i>Subtotal</i>	\$ ___-__
Supplies & Materials/Operational Equipment		
Activity 1		\$_13,600_
Activity 2		\$_6,000_
Activity 3		\$_1,650_
Activity 4		\$_8,400_
	<i>Subtotal</i>	\$_29,650_
Capital Assets		
Activity 1		\$_16,000_
Activity 2		\$_29,550_
Activity 3		\$_9,660_
Activity 4		\$_14,400_
	<i>Subtotal</i>	\$_69,610_
	<b>Grand Total</b>	<b>\$_100,000_</b>

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# PERKINS V

LOCAL PERKINS APPLICATION  
2020-2024

STAND-ALONE



OFFICE OF CAREER, TECHNICAL, AND ADULT EDUCATION

**General Information**

301 Centennial Mall South, Lincoln, NE

Nebraska has a vibrant economy with an array of promising career opportunities for its citizens. To take full advantage of the region's workforce options, students must be aware of the occupations that exist and earn the requisite secondary and postsecondary credentials to secure employment. Career and Technical Education (CTE) in Nebraska helps prepare students for postsecondary education and careers, both options and not one or the other.

The federal Strengthening Career and Technical Education for the 21<sup>st</sup> Century Act (Perkins V) provides resources to support educators in developing the academic, technical, and employability knowledge and skills of secondary and postsecondary education students enrolling in CTE programming.

This **Local Perkins Application** must be completed by all secondary and postsecondary (stand-alone and consortia) CTE providers seeking federal funding through Perkins V. Staff from the Office of Career, Technical, and Adult Education at the Nebraska Department of Education (NDE) have created this document to assist you in developing a strong application for Perkins V funding, one based on information that surfaced as part of your REVISION process.

The Local Perkins Application asks you to describe how your district will use federal funds in strengthening CTE programming and expand student access to CTE programs. Under Perkins V, each state is required to submit a four-year plan to the U.S. Department of Education, Office of Career, Technical, and Adult Education (OCTAE) covering the 2020-2024 academic years. Local CTE providers (districts, consortia, and community colleges) receiving a Perkins V grant allocation are also required to submit plans with the same timeline committed. Submission of this Local Perkins Application will fulfill that eligibility requirement.

*The Local Perkins Application and Resources are available online at  
<https://www.education.ne.gov/nce/perkins-administration/>*

**Eligible Recipients**

Under Perkins V, eligible recipients include local educational agencies, area career and technical education schools, educational service agencies, Indian Tribes, Tribal organizations, Tribal educational agencies, or a consortium eligible to receive assistance under section 131 of the Act, or, an eligible institution or consortium of eligible institutions eligible to receive assistance under section 132 of the Act.

Eligibility is contingent upon recipients' completion of the NDE's reVISION process, submission and approval of this Local Perkins Application and annual budgets, and the annual confirmation that CTE Essential Components are in place, which indicate CTE programs of are of sufficient size, scope, and quality to be effective and meet the needs of all learners.

A secondary school district must qualify for a minimum allocation of \$15,000 or join/form a consortium with other eligible recipients. A postsecondary institution must qualify for an allocation of \$50,000 or join/form a consortium with other eligible recipients.

School districts and community colleges will continue to use the NDE's web-based tool that indicates their intent to participate in Perkins funding each year and certify their Essential Components are in place. The implementation of the Essential Components will be verified through multiple means to ensure high-quality CTE programming (i.e. monitoring visits, risk analysis, annual reports).

#### **Use of Funds**

Under Perkins V, the allocation of resources must now be aligned with the results of the reVISION process. Specifically, funds must be spent "to develop, coordinate, implement, or improve career and technical education programs to meet the needs identified in [reVISION]."

In addition to the overall requirement that local funds be used to support CTE programs of sufficient size, scope and quality to be effective and meet the needs of all learners, the law requires the following uses of funds (throughout the duration of the four-year plan):

1. Provide career development activities through an organized, systematic framework;
2. Provide professional development for a wide variety of CTE professionals;
3. Provide within CTE the skills necessary to pursue high-skill, high-wage and high-demand industry sectors or occupations;
4. Support the integration of academic skills into CTE programs;

5. Plan and carry out elements that support the implementation of CTE programs and programs of study and that result in increased student achievement\*; and
6. Develop and implement evaluations of the activities funded by Perkins.

*\*Key activities such as purchasing industry-grade equipment and supporting CTSOs, work-based learning, and dual-enrollment, among numerous others, are included under the elements that support the implementation of programs and programs of study.*

Visit the [Perkins Management Guide](#) for additional information about allowable uses of Perkins funds.

#### **Timeline and Deadlines**

- Annual Intent to Participate Due: March
- Local Perkins Applications Due (2020-2024): May 22, 2020 (tentative)
- Grant Award Notification for ¼ of annual allocation: July 1
- Grant Award for full annual allocation: October 1
- Annual Final Claims Due: September 1

*\*Dates are subject to change. Please visit <https://www.education.nh.gov/hce/perkins-administration/> for updated information.*

#### **Submission Information**

Completed applications should be submitted and uploaded within the NDE's Grants Management System by May 22, 2020.

#### **Application Elements**

The following outline is provided to support eligible recipients as they develop their four-year Local Perkins Application.

- Section 1: reVISION Summary
- Section 2: Narrative Responses
- Section 3: Annual Budget Worksheet

This four-year Local Perkins Application only needs to be submitted **once**. For the remaining program years (2021 - 2024), only progress, update, and annual budget information will be submitted to the NDE.

**Going from reVISION to the Local Perkins Application**

Creating and enhancing opportunities for all students requires foresight, careful planning, and targeted investment. To help your district determine where to begin and which action steps to approach first, it will be necessary to review the actions steps identified by your district and economic development region through the reVISION process (see Local and Regional CTE Assessments) and establish a set of high-priority, overarching goals. Multiple sources of information and other data from the reVISION process may need to be reviewed to accomplish this effectively.



#### Step 1: Establish Goals

Through active participation in the reVISION process, your district, along with education partners, reviewed a number of different data elements (e.g. school faculty demographics, non-traditional student participation rates, CTE student performance data, etc.). Given these data, desired states and potential action steps were identified for each of the six required elements (at both the Local and Regional levels). Taking all of these desired states and action steps into consideration, identify a goal or set of goals your district might pursue to ensure high-quality CTE programming for your students.

#### Step 2: Identify Action Steps & Set Priorities

After careful review of the action steps already identified through reVISION,  consider the following questions in relation to your overarching goals as identified above:

1. Which of the action steps identified are of highest priority?
2. Are all action steps equally likely to be achieved?
3. Which action steps might you seek to address in each of the application's four years, especially the first grant year (2020-2021)?

Based on all reflections throughout reVISION and in Application, prioritize the actions steps to be addressed achieve the goals established for your district. Your district working towards accomplishing these goals over the next

preparing this Local Perkins under Perkins V that will help will be held accountable for four years to move the entire CTE

system forward. You will have the opportunity to update and refine your goals and action steps throughout the four years of the plan.

**Step 3: Plan for Next Year**

After identifying the prioritized action steps your district will take to achieve your overarching goals, you will need to detail the related expenditures you seek Perkins funds to support for the upcoming academic year. Carefully review the required uses of Perkins funds along with the non-allowable uses of Perkins funds – both found on the Perkins Grants Management website: <https://www.education.ne.gov/nce/perkins-administration/>. A budget template is provided to help gather and prepare the necessary information to enable quick and easy entry into the NDE's Grants Management Systems (GMS) Perkins Budget.

The Strengthening Career and Technical Education for the 21<sup>st</sup> Century Act (Perkins V) requires each eligible Perkins recipient to complete a comprehensive local needs assessment. In Nebraska, this requirement will be met by participating in the reVISION process – Nebraska’s opportunity for schools and community colleges to analyze and transform their current CTE systems in order to improve their ability to educate a qualified workforce that meets industry needs within an ever-changing economy. Outcomes from reVISION will drive the development of this Local Perkins Application and all future spending decisions.

**reVISION Summary.** Considering your district’s Local CTE Assessment and the Regional CTE Assessment summary, briefly summarize the current state of each element and the overarching goals your district might pursue in strengthening the CTE programming for your students. These summaries will form the rationale for the action steps needed and use of Perkins funds in the next sections.

Element	Current State	Overarching Goal(s)
<p><b>SAMPLE:</b></p> <p><b>Size, Scope, and Quality and Implementing CTE Programs of Study</b></p>	<p>Most programs have the components in place, the programs require updates to meet changing industry program 2) in communication arts. While we are confident in our local planning and selection of programs of study offered (validated through reVISION), the identification of new and emerging technologies and occupational projections necessitates a comprehensive and thorough review of programs and how each are being implemented throughout the district.</p>	<p>with H3 occupations will be reviewed to meet industry standards and expectations. expand CTE program offering across the district, which includes professional development on program of study standards and the NDE’s Standards Implementation Framework.</p>

**reVISION SUMMARY**

**Element**

**Summary of Current State**

**Overarching Goal(s)**

**Career Development**

At Columbus Public Schools, we work to provide students with numerous career and college readiness opportunities. Our Career and Technical Education programs, at both the middle and high school levels, are staffed with knowledgeable instructors who are always incorporating the latest industry standards into their curriculum. Along with the high-quality instructors, they are able to offer numerous industry recognized certifications such as Microsoft Office Suite, NC3 SnapOn Precision Measurement, various automotive certifications, Safe With You for early childhood education, and OSHA certifications. Furthermore, in the introductory courses within each pathway, students will be introduced to career fields, the career readiness standards, as well as personal and professional skills and knowledge to create well rounded individuals. Students will also be required to enroll in the Personal Finance course as a requirement for graduation starting with the class of 2023. Additionally, a survey was conducted with the grades 9-12 student body to better understand the students' career interests, and to guide the current and future programs of study planning. Lastly, with students entering into the high school setting from middle school, they meet with their grade-level counselor to fill out a four-year plan and identify courses that would best fit their interests and future career plans.

Each year Columbus High School hosts a Perkins Advisory Committee meeting to collaborate with business and industry to share and gain insight on the local needs and share data of our current programs of study and student population.

At Columbus High School, we want to ensure that every student is college and career ready. To start, this includes that every student has a four-year plan that guides students into a postsecondary career path that best suits them. Additionally, students enrolled in CTE introductory courses will learn academic, behavioral, and career skills. Students will also be exposed to postsecondary opportunities in each of the courses listed in the different clusters. Additionally, to have students be college and career ready, we want to provide them the opportunities such as:

- job shadows either in person or virtually
- mock interviews
- register for college at the high school
- make AP, dual credit, and college classes for accessible and affordable
- obtain industry recognized certifications
- military enrollment
- involvement in CTSOs, activities, clubs, and activities

Lastly, we want to match our course offerings with the students' interests and local employment needs. To do this, we will survey our students to find their interests and match them with our local needs assessment and the H3 data. We strive to continue to expand our current programs to fit the needs of local industry and stay up to date on best practices.

<p><b>Local Workforce Alignment</b></p>	<p>At Columbus High School, for the 2019-20 school year, we reevaluated our programs of study and surveyed our students to better match their interests with the demand from the H3 website and local industry. With this survey, the students indicated CHS lacks in the healthcare, education, and digital media pathways in alignment with their interests. These pathways also align to the regional needs with the need for more nurses, teachers, and potentially the marketing field. To better fill these areas, we hired an additional digital media teacher and also as partnering more closely with the Educators Rising CTSO as well as researching post-secondary opportunities in the education field for students to participate in high school. Within the nursing field, CHS has students participate in the HOSA CTSO as well as participate in the Job shadowing P.A.T.H. program at the Columbus Community Hospital.</p> <p>In alignment with the regional needs, there are areas in which we thrive and some that are not applicable at the high school level. To start, within the areas of most need in the northeast region, CHS offers programs of study, a CTSO, or a community partnership to help students gain knowledge and experience in a certain career area. For example, in our manufacturing pathway, our students are exposed to industry tours, guest speakers, apprenticeships, and certifications to align with machining and fabrication. A gap that exists at CHS is the need for a program of study for nursing and teaching. Additionally, a gap exists with students moving from introductory courses through the capstone course. To close this gap, CHS has hired an additional STEM teacher to get more students into introductory courses as well to offer more sections of capstone courses.</p> <p>An additional gap that CHS is confronting is employability skills. Within our 9th Grade Seminar course being offered in 2020-21, students will be taught, in depth, specific employability skills to gain a job, and keep a job. Another gap that could be addressed is incorporating specific career interests into the Information Technology pathway. Currently students have the ability to gain the Microsoft Office Certification, but the courses could be more industry driven.</p> <p>Within our CTE programs, students are able to be exposed to specific career areas. Students that enter the workforce from our programs are able to leave with either industry certifications or experience with industry standards in the workplace. For example, students in the automotive program are able to gain precision measurement certifications through the SNAP ON program. Additionally, students in the construction program can achieve not only the precision measurement certification, but experience on the job site with building a house. Lastly, students in STS courses are able to gain</p>	<p>To align Columbus High School with the local workforce, we have established a number of areas to address in the next four years. These include:</p> <ul style="list-style-type: none"> <li>Teach employability skills in the introductory courses</li> <li>Continue to grow enrollment numbers in CTOS as well as start a FCCLA chapter</li> <li>Enhance industry experiences for students through job shadows and apprenticeships, industry tours, guest speakers, and providing industry certifications in the classroom</li> <li>Continue business and industry partnerships through ongoing communication and collaboration as well as participation in advisory board meetings</li> <li>Throughout these meetings, study workforce needs and align course offerings to the needs</li> <li>Provide unique opportunities for special student populations such as: <ul style="list-style-type: none"> <li>School to work transition programs</li> <li>Provide counselors with the resources to best help students</li> <li>Continuous partnership with VR staff to serve students with</li> </ul> </li> </ul>
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<p>certification in OSHA.</p> <p>At CHS, we attempt to align our programs with regional needs, post-secondary opportunities, and industry certifications and standards. We understand where our gaps exist and have researched opportunities to close these gaps. With the rating, we are in the process of formalizing these opportunities and giving students better experiences to prepare them for life after high school.</p>	<p>disabilities</p> <p>Research and implement the expansion of teaching and nursing programs at the high school level</p>	<p>To provide the best experiences for our students and to sustain a program to stay at the forefront of STEM education, certain measures need to be taken. Goals to achieve this status include:</p> <ul style="list-style-type: none"> <li>Continually updating, upgrading and purchasing industrial grade equipment</li> <li>Work with school counselors to help students complete introductory courses through capstone courses</li> <li>Research and expand workplace experiences for students through virtual job shadowing, field trips, industry experiences and apprenticeships</li> <li>Research the latest industry certifications and grow our programming to deliver to students</li> <li>Continue to grow and adapt our advisory board to meet local workforce needs</li> </ul>
<p><b>Size, Scope, &amp; Quality and Implementing CTE Programs of Study</b></p>	<p>CHS has a strong relationship with postsecondary institutions, business and industry to give students a robust learning environment. There are numerous guest speakers, tours, job shadowing experiences, and apprenticeships that students can attend to gain knowledge and skills for the workplace. Through student surveys, observations, and gained feedback, we recognize the need to expand our programs beyond what we currently offer. To address these issues, we will be specific in our recruitment and hiring practices targeted towards desired programs of study. Additionally, students within CTE courses are offered the ability to gain industry recognized certifications such as OSHA, NCS SnapOn, Microsoft Office, and Safe with You. An area of improvement would be to offer more programs of study based upon student interest.</p>	<p>To consistently evaluate and improve programs, we should consistently examine the data to address our strengths and areas for improvement. With our trend data, the areas to address are as follows:</p>
<p><b>Student Performance Data</b></p>	<p>As a school, it is our priority to "Engage All Learners to Achieve Success". With the current data, there are significant gaps that need to be addressed. First, as a CTE program, we need to promote and keep students enrolled in courses up to and through the capstone courses. Next, specific strategies should be implemented to incorporate technical reading, writing and math</p>	

	<p>skills into each unit of study. Furthermore, there should be interdisciplinary collaboration to achieve the technical reading and math skills attainment in more than just the CTE programs. Lastly, there should be an emphasis on concentrator completion for non-traditional and special populations.</p>	<p>Increase enrollment in capstone courses</p> <ul style="list-style-type: none"> <li>Focus on non-traditional and special populations</li> <li>Incorporate reading, writing, and math strategies into units with interdisciplinary collaboration</li> <li>Ensure all marketing materials and district publications represent a diverse range of students</li> </ul>
<p><b>Recruitment, Retention, and Training of Faculty and Staff</b></p>	<p>At Columbus High School, our current staff has a teaching tenure of a combined 149 years of teaching in Columbus Public Schools. Instructors are master's in their fields, holding current industry standard certifications, respective to their content area. While obtaining new instructors is difficult throughout the state, Columbus has made a commitment to hiring the best instructors available. We believe this could be an area of growth to better promote the CTE teaching field as well as to grow our own. We are constantly looking at different ways to hire new staff members.</p>	<p>The greatest indicator of student performance is the quality of the teacher in the classroom. To ensure the quality of the CTE staff put in front of our students, certain areas of focus will be taken. Recruitment, and most importantly, retention of our staff is key to a stable and quality program.</p> <ul style="list-style-type: none"> <li>Partner with the Chamber of Commerce to promote CTE positions at career fairs, research teacher education career fairs, partner with college method classes to bring pre-service teachers into the classroom</li> <li>Utilize marketing materials for CTE during recruitment opportunities</li> <li>Provide travel accommodations for CHS staff to attend teacher education job fairs</li> <li>Continue to offer relevant professional development for current staff</li> </ul>
<p><b>Work-Based Learning</b></p>	<p>CHS currently has staff working to provide work-based learning opportunities for students. These experiences range from a one-time job shadowing experience to a full apprenticeship opportunity. Experiences generally sought out by students are in education, healthcare and general business areas</p>	<p>Providing meaningful and unique experiences to our students will continue to grow and expand our CTE programs. To do this, we will</p>

	<p>including finance and HR. There are also apprenticeship programs put in place at Behlen Manufacturing, Ernst Auto and Gene Steffy Ford. CHS will work to identify ways to reach out to a broader number of students that is still manageable for the available CHS resources.</p>	<p>concentrate on specific areas to grow and others to explore.</p> <ul style="list-style-type: none"> <li>Continue to grow and enhance our advisory board to meet local workforce needs</li> <li>Continue to partner with the Chamber of Commerce and the PATH program to develop and foster relationships with local business and industry to provide job shadowing opportunities for students</li> <li>Provide ongoing industry field trips, virtual job shadowing, guest speakers, and other student networking opportunities with local business leaders</li> </ul>
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**Instructions:** For all six elements, answer each of the following questions based on the outcomes of the reVISION process and the district's overall goals. You'll be asked to prioritize the action steps developed for each year of the Local Perkins Application. Utilize the findings of both the local and regional CTE assessments.

## Element 1: Career Development

**Context:** Each Nebraska learner deserves the opportunity to discover how their own skills fit into workplaces, to explore and learn about career options, and receive guidance in how to plan for successful transitions to their career. Students receive these opportunities through learning skills in a Career Development program which includes: 1. Self-Awareness, 2. Career Exploration, and 3. Career Planning. Students should have access to a career development program throughout their education to prepare for enrollment in CTE and while participating in CTE programs.

1. Describe how, in collaboration with education and workforce partners (i.e. local workforce development boards, one-stop delivery systems, local workforce agencies, etc.) your district will ensure each student is provided with:
  - a) Self-awareness: self-knowledge of one's own attainment of NE career readiness standards, academic standards, and technical skills;
  - b) Career exploration: understanding and skills to find valid information about occupations, CTE options for middle school, high school, and postsecondary education and training for career goals; labor market information for high-wage, high-skill, and high-demand (H3) occupations as determined through the reVISION process, and opportunities for work-based learning to demonstrate skills;
  - c) Career planning: understanding and skills to choose, apply, and finance relevant postsecondary options for career goals, and develop job search skills such as interviewing, application and resume writing, portfolio development, professional networking, etc.; and
  - d) An organized system of delivery to implement career development content with career and academic advising to students on an on-going basis (before enrolling and while participating in CTE programs).

### RESPONSE:

- a) At Columbus High School (CHS), we value the importance of teaching students career readiness skills throughout their high school experience. In our time of reflection during the 2019-20 school year, we placed a heavy importance of these skills by approving a new position to teach a Career Seminar course. In this course, as well as introductory courses, it has been created and structured around the NE career readiness standards. Students will be taught, in depth, these

*standards as well as academic and behavioral expectations, opportunities for virtual job shadowing for enhanced career readiness covering every career field.*

- b)** *Additionally in the Career Seminar class and other introductory courses, students will explore different career opportunities, both in and out of the classroom, through virtual job shadows, industry field trips, guest speakers, and on-the-job shadowing in a variety of fields. Furthermore, in the CTE classes at both the middle and high school levels, students explore the opportunities for different postsecondary experiences with the different career paths. At the middle school level, this includes a college visit to the University of Nebraska at Lincoln at the 8<sup>th</sup> grade, multiple exposures to Central Community College both on and off campus, Reality 101 simulation through the Columbus Chamber of Commerce, STEM 101 curriculum in grades 5 through 8, and counseling lessons taught in classrooms about the different postsecondary options. In the past at the high school, the importance of H3 jobs was covered substantially in the graduation required, Career Education course. This teaching and learning will continue as a part of the Career Seminar class and introductory courses moving forward. Lastly, in the past 4 years, our Workplace Experiences class has provided more opportunities for students to explore careers. Students have gained a more in-depth knowledge of job shadowing and apprenticeships through the emerging partnerships with local businesses, industry, and local chamber of commerce.*
- c)** *At the middle school, students are exposed to multiple experiences relating to different postsecondary options as well as career fields. Students participate in a Reality 101 simulation provided by the local chamber of commerce and are taught the different postsecondary options through advisory lessons taught by the middle school counselors. At the high school, current CHS students have taken a Career Education course that covered the job application process, including interviewing, and application and resume writing. In the Workplace Experiences class, students had the opportunity to participate in mock interviews, in conjunction with the local chamber of commerce, and to also increase their professional networking throughout their job shadowing placements. Additionally, in the newly created Career Seminar course, students will be required to create a professional portfolio throughout the entirety of the class to prepare them for their postsecondary options.*

- d)** *At Columbus High School, each student completes a four-year plan to guide their class schedule to prepare them for their postsecondary path. Students meet with their counselor yearly to collaborate on their career interests, review likes/dislikes in current and previous courses, and explore opportunities for the future and beyond. This four-year plan is*

*a working document that helps place students into courses that best fit their career interests.*

**2. In your district's Local and Regional CTE Assessments, action steps were identified that might be used to improve student understanding of career pathways. First, write the district's overarching goal(s) for this element in the space provided. Then list, in priority order, the action steps identified related to Career Development your district will address over the next four years. These activities should directly relate to the annual budget application for Perkins funds submitted to the NDE.**

**District's Goal(s) for Career Development:**  
*(Copy and paste from the VISION Summary)*

At Columbus High School, we want to ensure that every student is college and career ready. To start, this includes that every student has a four-year academic plan that guides students into a postsecondary career path that best suits them. Additionally, students will be required to take the Career Seminar class that educates students on academic, behavioral, and career skills as well as instructs according to the NE career readiness standards. Moreover, these skills and standards will be taught in introductory courses. Students will also be exposed to postsecondary opportunities in each of the courses listed in the different clusters. Additionally, to have students be college and career ready, we want to provide them the opportunities such as:

- job shadows either in person or virtually
- mock interviews
- register for college at the high school
- make AP, dual credit, and college classes for accessible and affordable
- obtain industry recognized certifications
- align courses with up-to-date industry-standard equipment
- military enrollment
- involvement in CTSOs, activities, clubs, and activities

Lastly, we want to match our course offerings with the students' interests and local employment needs. To do this, we will survey our students to find their interests and match them with our local needs assessment and the H3 data. We strive to continue to expand our current programs to fit the needs of local industry and stay up to date on best practices.

<b>Prioritized Action Steps for Career Development:</b>	
<b>Program Year</b>	<b>Action Steps</b> <i>(What are you going to do to achieve your goal?)</i>
<b>Year 1: 2020-2021</b>	<ol style="list-style-type: none"> <li>1. Purchase a license to provide virtual job shadows to students in introductory courses, Career Seminar course, as well as the Workplace Experiences course through STRIV&gt;ENMEDIA at virtualjobshadow.com</li> <li>2. Research and attend workshops and conferences specifically for career and industry knowledge attainment to present to students in the classroom               <ol style="list-style-type: none"> <li>a. Nebraska Career Education conference</li> <li>b. Tire Pressure Monitoring System training</li> <li>c. Festo</li> <li>d. NDE curriculum workshops</li> <li>e. NSCA Conference for counselors</li> </ol> </li> <li>3. Continue to host local industry representatives in classrooms and participate in industry tours</li> <li>4. Grow opportunities for Workplace Experiences course through job shadows, apprenticeships, and internships</li> <li>5. Host at minimum, one Perkins Advisory Committee Meeting</li> </ol>
<b>Year 2: 2021-2022</b>	<ol style="list-style-type: none"> <li>1. Expand construction pathway with industry grade equipment for construction, electrical, plumbing, and/or masonry in correlation with local contractors</li> <li>2. Explore options on how to grow an education pathway</li> <li>3. Provide opportunities for college and career visits for students in CTE courses</li> <li>4. Explore opportunities to supplement middle level courses for career education implementation</li> <li>5. Prioritize expanded learning opportunities for students in special populations</li> </ol>
<b>Year 3: 2022-2023</b>	<ol style="list-style-type: none"> <li>1. Begin the first stages to start a program of study for healthcare pathway               <ol style="list-style-type: none"> <li>a. Professional development for current instructors</li> <li>b. Explore CNA certification to be taught at the high school</li> <li>c. Research opportunities to teach CPR at the high school and purchase manikins</li> </ol> </li> <li>2. Expand robotics and drone technology in classrooms for robotics, construction and agricultural integration with an emphasis on career opportunities in these areas</li> </ol>

	<ul style="list-style-type: none"> <li>3. Provide opportunities for college and career visits for students in CTE courses</li> <li>4. Provide opportunities in CTSOs to expand employability skills, business/industry partnerships, and exploring H3 careers</li> <li>5. Conduct local needs assessment for employability trends</li> </ul>
<p><b>Year 4: 2023-2024</b></p>	<ul style="list-style-type: none"> <li>1. Provide opportunities for college and career visits for students in CTE courses</li> <li>2. Attend national conference for professional development</li> <li>3. Explore opportunities in industry and for special populations</li> <li>4. Evaluate program/pathway options through stakeholder input <ul style="list-style-type: none"> <li>a. i.e. Impact of Career Seminar course</li> </ul> </li> </ul>

## Element 2: Local Workforce Alignment

**Context:** Each Nebraska student participating in a CTE program should graduate with the skills and credentials necessary to continue their education and find employment in high-skill, high-wage, and high-demand (H3) occupations. In this section of the application, you will use the results of your local and regional CTE assessments to improve the alignment between educational programming and labor market needs.

### 3. How did the Local and Regional CTE Assessment results inform the selection of specific CTE programs and activities to be funded?

**RESPONSE:** In the local and regional CTE Assessment results, there were a number of items that prioritized the spending of Perkins/reVISION funds. To start, in the assessments, there was a need for career development for students. To address this need, we will teach, in depth, these skills through the Career Seminar course being offered to freshmen with a major emphasis to expose students to a variety of careers. Additionally, with feedback from our advisory board and student and staff surveys, it is a priority to keep our programs up-to-date with industry grade equipment, technology, and computers as well as to start new programs in the video production field as well as explore the opportunities for health sciences and education pathways.

To better retain and hire CTE teachers, in both the local and regional assessments, it was stated that a focus should be put on professional development for teachers. At Columbus High School, the need will be to continually attend state level workshops and conferences as well as be open to opportunities that are presented for the teachers in their fields.

Lastly, with a major focus of Perkins/reVISION being work-based learning, funding will be prioritized towards providing both in-person and virtual job shadows in both the Career Seminar course as well as Workplace Experiences.

### 4. Describe any new programs of study that will be explored and developed and submitted for approval based on the

**results of the Local and Regional CTE Assessment results.**

**RESPONSE:** From the Local and Regional CTE Assessment results, we established the need to explore more opportunities in the education and medical fields as well as develop and implement a Career Seminar course for the 2020-21 school year. During the 2019-20 school year, we explored the opportunity to participate in the S.T.E.P. program for students exploring the education field in high school through Wayne State College. Additionally, through surveying our students and analyzing the regional H3 data, it was determined there was a need for more exploration on how to incorporate these programs into the high school setting. Lastly, in the 2020-21 school year, CHS will be offering the Career Seminar course to all freshmen to focus on career development and employability skills.

**5. How will students, including those from special populations, learn about their school's CTE course offerings and whether each course is part of a CTE program of study? Be specific in regards to serving special populations based on the outcomes of the reVISION process.**

**RESPONSE:** When analyzing Perkins student performance data, moving students in special populations from the intermediate level to the capstone courses was an area of weakness not only in the number of students in the programs, to the students that become concentrators. To combat this gap, we will work with counselors and teachers to better align the students' 4-year plans to their areas of interest as well as attempt to eliminate barriers to the classes through individualized plans. Additionally, all freshmen students, including students in special populations, will learn about the different career opportunities and how they align to our programs of study being offered in the Career Seminar course.

**6. In your district's Local and Regional CTE Assessments, action steps were identified that might be used to improve program alignment to local workforce development efforts and labor market information. First, write the district's overarching goal(s) for this element in the space provided. Then list, in priority order, the action steps identified related to Local Workforce Alignment your district will address over the next four years. These activities should directly relate to the annual budget application for Perkins funds submitted to the NDE.**

**District's Goal(s) for Local Workforce Alignment:**

***(Copy and paste from the revision Summary)***

To provide the best experiences for our students and to sustain a program to stay at the forefront of STEM education, certain measures need to be taken. Goals to achieve this status include:  
 Continually updating, upgrading and purchasing industrial grade equipment  
 Work with school counselors to help students complete introductory courses through capstone courses  
 Research and expand workplace experiences for students through virtual job shadowing, field trips, industry experiences and apprenticeships  
 Research the latest industry certifications and grow our programming to deliver to students  
 Continue to grow and adapt our advisory board to meet local workforce needs

**Prioritized Action Steps for Local Workforce Alignment:**

<b>Program Year</b>	<b>Action Steps</b> <i>(What are you going to do to achieve your goal?)</i>
<p align="center"><b>Year 1: 2020-2021</b></p>	<ol style="list-style-type: none"> <li>1. Student experiences to industry-related field trips (i.e. Manufacturing Day)                             <ol style="list-style-type: none"> <li>a. Explore experiences for students in special populations</li> </ol> </li> <li>2. Student experiences and travel for training and college readiness</li> <li>3. Host at minimum, one Perkins Advisory Committee Meeting</li> <li>4. Provide specialized opportunities for college visits for students in CTE courses</li> <li>5. Upgrade industry standard equipment as necessary</li> <li>6. Purchase a TV to use as a display to market companies and available jobs in the local area</li> </ol>
<p align="center"><b>Year 2: 2021-2022</b></p>	<ol style="list-style-type: none"> <li>1. Continue to host local industry representatives in classrooms and participate in industry tours</li> <li>2. Student experiences and travel for training and college readiness</li> <li>3. Increase industry representation at the Perkins Advisory Committee Meeting</li> <li>4. Increase community partnership with CTSOs</li> <li>5. Participate in community coalition meetings to stay current on local workforce needs</li> <li>6. Provide professional development for expanded opportunities new and existing pathways</li> </ol>
<p align="center"><b>Year 3: 2022-2023</b></p>	<ol style="list-style-type: none"> <li>1. Recruit new members to the Perkins Advisory Committee Meeting</li> <li>2. Provide opportunities for college and career visits for students in CTE courses with a priority on students</li> </ol>

	<p>in special populations and non-traditional fields</p> <ol style="list-style-type: none"> <li>3. Provide professional development for expanded opportunities new and existing pathways</li> <li>4. Explore the options to start a healthcare pathway             <ol style="list-style-type: none"> <li>a. CNA certification</li> <li>b. CPR manikins</li> </ol> </li> </ol>
<p><b>Year 4: 2023-2024</b></p>	<ol style="list-style-type: none"> <li>1. Explore experiences in H3 careers for students in special populations</li> <li>2. Research and potentially purchase a welding simulator for classes targeting special populations such as English Language learners and females</li> <li>3. Provide professional development for expanded opportunities new and existing pathways</li> <li>4. Align course offerings with local workforce needs</li> </ol>

### Element 3: Size, Scope, & Quality and Implementing CTE Programs of Study

**Context:** Nebraska is committed to ensuring each student has access to high-quality CTE programming. Nebraska's state model programs of study are high-quality programs if implemented with fidelity (i.e. teaching at least 90% of each course's standards). They are based on labor market information, offer non-duplicative, sequential coursework, incorporate industry-validated and NDE approved standards, provide work-based learning experiences when applicable, include dual enrollment or early college programs, and lead to recognized postsecondary and industry credentials. Local programs of study may be developed and submitted for approval if determined necessary by the Local and Regional CTE Assessment results.

**7. Describe the CTE course and program offerings that will be provided with Perkins funds, including not less than one state-approved program of study. Justify these offerings with the local and regional CTE assessment results.**

**RESPONSE:** At Columbus Public Schools, we offer numerous courses and programs of study at different levels that are supported by Perkins funds at different capacities. At the middle school level, there are courses such as Foods, Finance, Digital Media, and STEM that utilize Perkins funds through providing professional development opportunities as well as most recently, purchasing of a CNC router for STEM classes. At the middle school level, these courses are a necessity to get students into the CTE fields at the high school level. Within these courses, the students are exposed to a variety of disciplines from coding, architecture, finance, and foods to learning skills such as working with power tools, basic accounting, and food preparation. These courses align with our high school goal of making students college and career ready with exposure to multiple fields.

At the high school, there are numerous courses and programs of studies offered such as:

- Architecture and Construction
- Business Management and Administration
- Energy and Engineering
- Finance
- Health Sciences
- Information Technology
- Manufacturing
- Marketing
- Transportation, Distribution, and Logistics

<p>These programs align with our local and regional CTE assessment results with the inclusion of workplace, business and industry partnerships through job shadowing, apprenticeships, and the local advisory board; providing industry tours, collaboration, and certifications; and providing access to a wide variety of career fields to participate and explore. The majority of our CTE programs directly correlate with the local and regional needs of providing work-based learning throughout the program of study and analyzing the H3 careers.</p>
<p><b>8. How will your district improve the academic and technical skills of students participating in CTE programs? This may include strengthening the academic and CTE components of such programs through the integration of coherent and rigorous content aligned with challenging academic standards and relevant CTE programs to ensure learning in the subjects that constitute a well-rounded education.</b></p>
<p><b>RESPONSE:</b> To ensure that our students have access to relevant CTE programs, it starts with providing the opportunities for staff members to stay up to date on current practices and certifications in industry and academic standards set by the state as well as a focus on math and reading within the classroom in preparation for postsecondary options. Additionally, to improve the classroom experience and technical skills for students, there is a constant need to stay current on industry grade equipment. Our district will continue to do our best to provide these resources to our students and staff for success in our programs. Lastly, at the district level, we will continue to explore and broaden the different offerings for new programs of study for students to participate and concentrate.</p>
<p><b>9. Describe how your district will provide CTE students with the opportunity to gain postsecondary credit while still attending high school, such as through dual or concurrent enrollment programs or early college high school, as applicable.</b></p>
<p><b>RESPONSE:</b> At Columbus High School, students have multiple opportunities to gain postsecondary credit through Central Community College in construction, manufacturing, automotive, and mechatronics. We continually are open to new ideas and avenues to provide these options to students while in high school.</p>
<p><b>10. In your district's Local and Regional CTE Assessments, action steps were identified related to CTE program implementation (including size, scope, and quality) your district hopes to address over the next four years. First, write the district's overarching goal(s) for this element in the space provided. Then list, in priority order, the action steps identified related to</b></p>

**Size, Scope, and Quality and Implementing CTE Programs and Programs of Study your district will address over the next four years. These activities should directly relate to the annual budget application for Perkins funds submitted to the NDE.**

**District's Goal(s) for  
Size, Scope, and Quality and Implementing CTE Programs of Study  
(Copy and paste from the *VISION Summary*)**

To provide the best experiences for our students and to sustain a program to stay at the forefront of STEM education, certain measures need to be taken. Goals to achieve this status include:

- Continually updating, upgrading and purchasing industrial grade equipment
- Work with school counselors to help students complete introductory courses through capstone courses
- Research and expand workplace experiences for students through virtual job shadowing, field trips, industry experiences and apprenticeships
- Research the latest industry certifications and grow our programming to deliver to students
- Continue to grow and adapt our advisory board to meet local workforce needs

<b>Prioritized Action Steps for Size, Scope, and Quality and Implementing CTE Programs of Study</b>	
<b>Program Year</b>	<b>Action Steps</b> <i>(What are you going to do to achieve your goal?)</i>
<b>Year 1: 2020-2021</b>	<ol style="list-style-type: none"> <li>1. Purchase Festo mechatronics equipment to upgrade the current mechatronics lab setting</li> <li>2. Purchase Tire Pressure Monitoring System kits and training for TPMS certifications through Snap-On in alignment with CCC-Hastings for dual credit</li> <li>3. Start Video Production pathway               <ol style="list-style-type: none"> <li>1. Purchase computers, software, and accessories</li> </ol> </li> <li>4. Purchase of computers for coding for the middle school STEM program</li> <li>5. Support business department by providing GMETRIX software to practice for Microsoft Office certifications</li> <li>6. Purchase industry grade knife sets for the FCS classroom and one industry grade food dehydrator</li> <li>7. Upgrade industry standard equipment in CTE courses</li> </ol>
<b>Year 2: 2021-2022</b>	<p>Tools purchase for Principles of Construction class</p> <p>Tools purchase for expansion of Advanced Construction to continue partnership with local contractor</p> <p>Expand learning opportunities for students in the Food Sciences pathway</p> <p>Explore drone for implementation for construction mapping and land surveying - potential for ag implementation</p> <p>Purchase tools for underwater drone from year 1</p> <p>Expand mechatronics pathway with upgraded equipment in correlation with local industry needs</p> <p>Explore a Health Sciences pathway</p> <ol style="list-style-type: none"> <li>a. Potential partnership with Columbus Community Hospital</li> <li>b. Explore opportunities to hold CNA courses at the high school</li> <li>c. Explore CPR training at the high school</li> </ol> <p>Explore coding opportunities in partnership with Central Community College</p> <p>Upgrade industrial grade equipment upgrade in CTE courses</p> <p style="padding-left: 20px;">Align, upgrade, and expand middle school programs to with the high school programs of study and the local workforce alignment</p>

<p><b>Year 3: 2022-2023</b></p>	<ol style="list-style-type: none"> <li>1. Research expansion of Education Pathway with Wayne State College partnership</li> <li>2. Expand learning opportunities for students in the Food Sciences pathway</li> <li>3. Virtual reality simulator for automotive, construction, and engineering</li> <li>4. Expand CTSO participation and programming through development of CTSO options and investing in current CTSO experiences</li> </ol>
<p><b>Year 4: 2023-2024</b></p>	<ol style="list-style-type: none"> <li>1. Purchase laptops and cart for the business business department to upgrade their current equipment</li> <li>2. Industrial grade equipment upgrade in CTE courses</li> <li>3. Collaborate with stakeholders to review current and potential pathways</li> </ol>

## Element 4: Student Performance Data

**Context:** All students participating in CTE programs should attain academic, technical, and career readiness skill proficiency and transition into advanced education and training and employment. Throughout the Local and Regional CTE Assessments, your district reviewed student performance data on a set of federal performance indicators, identified root causes for programs and student populations that are substantially underperforming, and identified a set of action steps that that might be adopted to improve performance. To ensure and promote equitable access to CTE programs, recruitment materials, school counseling activities, and educational services offered to special populations should also be considered. In this section, you will review the high priority action steps identified at the program and student population levels to guide improvement.

**11. Describe how the district will provide support to teachers so they will:**

- a. Provide activities to prepare special populations for H3 sectors or occupations that will lead to self-sufficiency
- b. Prepare CTE participants for non-traditional fields
- c. Provide equal access for special populations to CTE courses, programs, and POS; and
- d. Ensure that members of special populations will not be discriminated against on the basis of their status as members of special populations

English learners;

Individuals experiencing homelessness

Youth who are in, or have aged out of, the foster care system;

Youth with a parent who is a member of the armed services

**RESPONSE:** At Columbus Public Schools, we help support and educate teachers to better provide accessibility to CTE programs for all students. One activity that has helped expose teachers to the current workplace trends is summer industry tours that are open to all teachers. Teachers from all levels have been able to take information back to their students to prepare them for life after high school. Additionally, at the middle school level, all students have to take exploratory classes in different programs such as fashion, foods, and STEM as well as host a Reality 101 simulation for all 8th grade students.

At the high school level, different measures are being taken to ensure teachers are provided the resources necessary for students in special populations. Support has been provided to take students on field trips, specifically for students in special education and females in STEM; provide paid apprenticeship and internship opportunities for students through the Workplace Experiences class; teach students employability skills through a Job Site class as well as through Project Search with the local hospital.

**12. How will the district address disparities or gaps in performance? If no meaningful progress has been achieved prior to the third program year, describe the additional actions that will be taken to develop strategies to eliminate those disparities or gaps.**

**RESPONSE:** In CTE courses, a focus has been put on student preparation for the ACT by implementing specific vocabulary and supplemental, online academic skill attainment resources with EdReady. These methods provide extra support to students in the CTE classes to close the reading and math gaps that exist. Additionally, in the classroom, teachers will continually make accommodations and modifications for specific students based on their needs.

**13. In your district's Local and Regional CTE Assessments, action steps were identified to address any disparities in student performance data. First, write the district's overarching goal(s) for this element in the space provided. Then list, in priority order, the action steps identified related to Student Performance Data that your district will address over the next four years. These activities should directly relate to the annual budget application for Perkins funds submitted to the NDE.**

District's Goal(s) for Student Performance Data:  
*(Copy and paste from the revision Summary)*

To consistently evaluate and improve programs, we should consistently examine the data to address our strengths and areas for improvement. With our trend data, the areas to address are as follows:  
Increase enrollment in capstone courses

<p>Focus on non-traditional and special populations          Incorporate reading, writing, and math strategies into units with interdisciplinary collaboration          Ensure all marketing materials and district publications represent a diverse range of students</p>	
<p><b>Prioritized Action Steps for Student Performance Data:</b></p>	
<p><b>Program Year</b></p>	<p><b>Action Steps</b>          (What are you going to do to achieve your goal?)</p>
<p><b>Year 1: 2020-2021</b></p>	<p>Review course descriptions and requirements for student entry into CTE classes          Intentional focus on 4-Year Plans to encourage completion of career pathways          Utilize EdReady software as a tool to increase reading and math scores for all students          Provide professional development to incorporate technical reading and math strategies into lessons including, but not limited to: resource and manufacturer manuals, precision measurement calculations, and engineering design process and data gathering/manipulation.          Purchase of digital camera and TV to market and raise awareness of CTE courses to students</p>
<p><b>Year 2: 2021-2022</b></p>	<ol style="list-style-type: none"> <li>1. Market CTE careers to students through industry field trips, guest speakers,</li> <li>2. Survey the special populations for program offering</li> <li>3. Analyze student data to identify gaps</li> <li>4. Continually track, monitor and explore opportunities for students to gain certifications in CTE courses</li> </ol>
<p><b>Year 3: 2022-2023</b></p>	<ol style="list-style-type: none"> <li>1. Provide professional development to staff to create action plan to improve student test scores</li> <li>2. Create a plan to increase participants and concentrators in CTE pathways</li> <li>3. Market CTSOs to students for increased participation             <ol style="list-style-type: none"> <li>a. Explore new opportunities for CTSO expansions</li> </ol> </li> <li>4. Collaborate with local business, industry and Chamber of Commerce to collect local workforce needs data</li> </ol>
<p><b>Year 4: 2023-2024</b></p>	<ol style="list-style-type: none"> <li>1. Identify gaps and action steps in technical skill attainment, secondary school completion, graduation rate, secondary school placement, and non-traditional placement and completion</li> <li>2. Attend trainings and conferences that include sessions on improving student assessment</li> <li>3. Survey student body for program offerings</li> </ol>

## **Element 5: Recruitment, Retention, and Training of Faculty and Staff**

**Context:** Providing high-quality instruction is at the heart of what CTE educators do in Nebraska every day. To prepare educators, take stock of your district's approaches towards recruiting a knowledgeable and diverse workforce, support services offered in order to retain staff, and the professional development provided to improve their skillsets. In this section, you will use the results of your district's Local and Regional CTE Assessments to prioritize the action steps identified for supporting educators and providing quality instruction to every student.

**14. Describe how your district will coordinate with the NDE and institutions of higher education to support the recruitment, preparation, retention, and training. Including professional development, of teachers, faculty, administrators, and specialist instructional support personnel and paraprofessionals who meet applicable State certification and licensure requirements, including individuals from groups underrepresented in the teaching profession.**

**RESPONSE:** At Columbus Public Schools, we provide our teachers the opportunity to participate in numerous NDE offerings. For example, CTE teachers are heavily encouraged to attend the NCE Conference every summer as well as participate in curriculum and standards workshops offered in the fall semester. Teachers are encouraged to attend any training or professional development to improve their educational craft or trends in industry. Our district will also provide efforts towards recruitment of CTE teachers through the Educators Rising CTSSO, specifically students interested in high needs areas. Moving forward, we will work with colleges and postsecondary institutions to recruit potential applicants through their educational classes and coursework.

**15. In your district's Local and Regional CTE Assessments, action steps were identified to address CTE educator recruitment, retention, and training and what your district hopes to address over the next four years. First, write the district's overarching goal(s) for this element in the space provided. Then list, in priority order, the action steps identified related to Recruitment, Retention, and Training of Faculty and Staff that your district will address over the next four years. These activities should directly relate to the annual budget application for Perkins funds submitted to the NDE.**

<b>District's Goal(s) for the Recruitment, Retention, and Training of Faculty and Staff</b> <i>(Copy and paste from the VISION Summary)</i>	
<p>The greatest indicator of student performance is the quality of the teacher in the classroom. To ensure the quality of the CTE staff put in front of our students, certain areas of focus will be taken. Recruitment, and most importantly, retention of our staff is key to a stable and quality program.</p> <ul style="list-style-type: none"> <li>Partner with the Chamber of Commerce to promote CTE positions at career fairs, research teacher education career fairs, partner with college method classes to bring pre-service teachers into the classroom</li> <li>Utilize marketing materials for CTE during recruitment opportunities</li> <li>Provide travel accommodations for CHS staff to attend teacher education job fairs</li> <li>Continue to offer relevant professional development for current staff</li> </ul>	
<b>Prioritized Action Steps for the Recruitment, Retention, and Training of Faculty and Staff:</b> <b>Action Steps</b>	
Program Year	(What are you going to do to achieve your goal?)
<b>Year 1:</b> <b>2020-2021</b>	<ol style="list-style-type: none"> <li>Promote CTE teaching careers to CTSOs, specifically the Educators Rising group for students interested in the teaching field</li> <li>Recruit practicum students in college systems to promote Columbus High Schools CTE programming</li> <li>Provide relevant professional development including industry standards and certification</li> <li>Networking and travel for recruitment at college and career fairs</li> <li>Use planned purchase of TV and camera for marketing of CTE education/educators</li> </ol>
<b>Year 2:</b> <b>2021-2022</b>	<ol style="list-style-type: none"> <li>Recruit student teachers from college systems to promote Columbus High School</li> <li>Expand our network of potential job openings to a broader field (i.e. currently employed persons)</li> <li>Continue to retain current experienced employees through personalized trainings and professional development opportunities</li> <li>Expand enrollment in CTSOs for student recruitment</li> <li>Promote established mentoring program with existing staff members</li> </ol>
<b>Year 3:</b> <b>2022-2023</b>	<ol style="list-style-type: none"> <li>Collaborate with local business and industry for training with industry-grade equipment</li> <li>Partner with college and industry representatives for qualified applicants</li> </ol>

<p><b>Year 4: 2023-2024</b></p>	<p>3. Utilize Career Coordinator for recruitment opportunities</p> <ol style="list-style-type: none"> <li>1. Potentially utilize community colleges for staffing partnerships</li> <li>2. Address competitive salary packages and potential incentives</li> <li>3. Participate in college method classes to promote CHS CTE program</li> </ol>
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**Element 6: Work-based Learning**

**Context:** Work-based learning strategies connect learners with employers to prepare them for success in an ever-changing workplace. Work-based learning is a planned program of meaningful experiences related to the career interests of a learner that enable him or her to acquire knowledge and skills in a real or simulated work setting. It requires strong partnerships between schools, colleges, and local employers. Work-based learning is learning through work, not learning about work. Nebraska will evaluate the quality of CTE programs, in part, by the percentage of CTE concentrators who participate in high-quality work-based learning experiences. Additional information about Nebraska's work-based learning strategies can be found here: <https://www.education.ne.gov/workplace-experiences/phase-3-work-based-learning-strategies-overview/>.

**16. Describe the WBL opportunities provided to CTE students in your district and how you will work with businesses and employers to develop or expand WBL opportunities, as applicable.**

**RESPONSE:** At Columbus High School, students are provided numerous opportunities to participate in work-based learning opportunities. To start, we host Perkins Advisory meetings to gain input from local business and industry members covering the trends they are facing as well as the potential for program offerings at the high school. Furthermore, CHS partners with the local Chamber of Commerce to help with the coordination of businesses to schools for the placement of students into job shadows. Additionally, in the Workplace Experiences class, students are provided the opportunity to job shadow or potentially a paid apprenticeship or internship in different career fields. Another opportunity provided by CHS is Project Search that is a partnership between the school and the local hospital. In this partnership, students gain employability skills and have the potential for a job after their placement. Lastly, a new learning experience for students will be a partnership with a local construction contractor to build a house for resale.

<p><b>17. In your district's Local and Regional CTE Assessments, action steps were identified related to work-based learning. First, write the district's overarching goal(s) for this element in the space provided. Then list, in priority order, the action steps identified related to Work-based Learning that your district will address over the next four years. These activities should directly relate to the annual budget application for Perkins funds submitted to the NDE.</b></p>	
<p><b>District's Goal(s) for Work-based Learning:</b>  <i>(Copy and paste from the REVISED Summary)</i></p>	
<p>Providing meaningful and unique experiences to our students will continue to grow and expand our CTE programs. To do this, we will concentrate on specific areas to grow and others to explore.</p> <p>Continue to grow and enhance our advisory board to meet local workforce needs</p> <p>Continue to partner with the Chamber of Commerce and the PATH program to develop and foster relationships with local business and industry to provide job shadowing opportunities for students</p> <p>Provide ongoing industry field trips, virtual job shadowing, guest speakers, and other student networking opportunities with local business leaders</p>	
<p><b>Prioritized Action Steps for Work-based Learning:</b></p>	
<p><b>Program Year</b></p>	<p><b>Action Steps</b>            (What are you going to do to achieve your goal?)</p>
<p><b>Year 1: 2020-2021</b></p>	<ol style="list-style-type: none"> <li>1. Provide students in experiences with guest speakers, field trips, job shadows and other industry related opportunities</li> <li>2. Research best practices and other relevant instructional practices related to Career Readiness for students               <ol style="list-style-type: none"> <li>a. Engage in industry partnerships and promote work based learning among students</li> <li>b. Virtual Job Shadow license to provide experiences in under-represented industries</li> </ol> </li> <li>3. Provide professional development for staff members on ways to incorporate work-based learning strategies and experiences in the classroom setting</li> </ol>
<p><b>Year 2: 2021-2022</b></p>	<p>Purchase industry grade equipment for CTE pathways, specifically the Construction pathway in partnership</p>

	<p>with Shelby Lumber</p> <p>Continue to engage employers on the benefits of providing experiences to students in the Workplace Experiences course</p> <p>Engage students in career experiences through virtual reality devices with business partnerships (NPPD)</p> <p>Identify and target other healthcare career employers in the Columbus Area to provide job shadowing opportunities for students.</p>
<p><b>Year 3: 2022-2023</b></p>	<ol style="list-style-type: none"> <li>1. Identify ways to increase participation in job shadowing experiences through CTE capstone courses</li> <li>2. Expand and provide more opportunities for students in the healthcare pathway</li> <li>3. Expand and provide more opportunities for students in the education pathway</li> <li>4. Continue partnership with local entities for students in special populations and individualized education plans</li> </ol>
<p><b>Year 4: 2023-2024</b></p>	<ol style="list-style-type: none"> <li>1. Explore work-based learning opportunities through classroom structure <ol style="list-style-type: none"> <li>a. Ex. Through capstone courses, integrate job shadowing, apprenticeship, or internship opportunity</li> <li>b. Interdisciplinary, student-led enterprise projects</li> </ol> </li> <li>2. Expand opportunities for students to participate in Food Sciences pathway</li> <li>3. Partner with local businesses for CTSO service learning projects</li> </ol>

### **Ensuring Equitable Access**

**18. How was improving the access to and success in CTE programs for each student, especially those who are members of a special population, examined and considered throughout the development of your goals for all six elements?**

**RESPONSE:** Throughout the reVISION process with the six elements and the development of our goals, different areas of focus were analyzed. To start, reaching our students at a younger age is a priority. At the middle school level, opportunities for industry experiences and learning opportunities is a positive attribute that we are always finding ways to expand. When transitioning to the high school and taking career development to the next level, a Career Seminar course will be offered for all freshmen to obtain career education knowledge, employability skills, and workplace experiences. Within individual pathways, different work-based learning opportunities will be provided such as field trips, guest speakers, and non-traditional experiences. Additionally, we continue to explore certification opportunities in all CTE areas for students to become more employable after high school. Within each program, it is a priority to provide the best experience possible for all students with up to date and upgraded industry grade equipment as well as providing the necessary professional development that teachers request. As a district, we will continually analyze student data to adjust and make improvements with deficiencies in the current programs offered as well as potential offerings. We are committed to providing offerings for students in special populations and to tailor experiences to their specific needs.

### **Stakeholder Engagement and Consultation**

Eligible recipients are required to engage a broad range of stakeholders who represent CTE and core academic areas, school counselors, special education, advisement professionals and academic counselors, administrators, instructional support professionals, parents and students, special populations (gender, race, ethnicity, migrant status, disability, economically disadvantaged, nontraditional, single parent, pregnant women, out of work individuals, English learners, homeless, foster care, active duty military, corrections), postsecondary CTE faculty, local workforce development, regional economic development, local business and industry, Indian Tribes and Tribal Organizations, and youth corrections, as applicable, in the development of the Local Perkins Application.

Evidence of this can be provided in several ways:

1. Upload a completed copy of your stakeholder verification worksheet(s) provided in the **reVISION Resource Manual** and include a description of how you will continue to engage these stakeholder groups throughout the duration of the Application (2020-2024); or
2. Detail the membership of an Advisory Committee that meets regularly to provide counsel, direction, and assistance to CTE programs. Include meeting dates, a sample agenda, and a description of the engagement that will take place throughout the duration of the Application (2020-2024). Membership should include representation from the above mentioned stakeholder groups, as applicable; or
3. Describe in detail how efforts were made to engage each of the required stakeholder groups throughout the development of this Local Perkins Application and how your district will continue to meaningfully engage them throughout the duration of the Application (2020-2024).

**It is recommended existing structures and means for engaging stakeholders that local districts no doubt already have in place are utilized as a starting point.**

**RESPONSE:** At Columbus Public Schools, we value the input and rely heavily on the support from local businesses and industry. In the past, an annual meeting was held during the school year to outline the CPS Perkins budget, programs of study, student data, and provided time for breakout groups to collaborate. In October 2019, a local needs assessment was conducted and invitations were sent out to the representatives for the Advisory Meeting that was hosted in November 2019. Through the 2019-20 Local Needs Assessment and the 2019 Perkins Advisory Meeting, the results and gaps in the local needs were presented and discussed in depth. The input from that meeting and the local needs assessment were the foundation to the creation of the new grant application.

Throughout the duration of the 2020-2024 Perkins Grant process, we will hold at a minimum of one Advisory Committee Meeting per school year. During the school year, the Career Coordinator interacts, participates, and is an active member of the Workforce Capture group through the local Chamber of Commerce as well as attends the Industry Leaders breakfast quarterly.

Sample Agenda

## 2019 Fall Perkins Advisory Meeting November 20, 2019

- Introduction of Staff and Invitees
- Purpose of Perkins
- What's New at Columbus High School
  - Personal Finance class
  - Certifications
  - Past/Present Expenditures
  - Pathways at Columbus High School
- Budget, Data, Local Needs Assessment
- Breakout Sessions
  - Business
  - Skilled and Technical Sciences
  - Family, Consumer, Sciences



The next step will be completed each year through 2024 and is based on the above four-year Local Perkins Application.

Based on the Action Steps identified for each element for the program years 2020-2024, detail your budget request for the **upcoming program year** using the budget template provided. List all direct costs associated with the implementation of the proposed activities/action steps that are allowable and justified. Provide explicit detail (e.g. if you plan to use funds to attend a national conference, the name and date of the conference along with all associated costs must be listed if known; if you plan to purchase a piece of equipment, list the name, model, and price). Add/remove rows as needed.

**Allowable uses of funds:** All grant funds must adhere to the Perkins Guidelines for use of Federal Perkins Funds as defined in the Nebraska Perkins Management Guide. In particular, no consumable items, furniture, or items that become part of a permanent structure may be purchased. Please visit <https://cdn.education.ne.gov/wp-content/uploads/2019/04/NonAllowableUseofFunds.pdf> for additional information related to allowable uses of funds. **As a reminder, only those activities that directly align with the outcomes of the reVISION process (as detailed in the Local Perkins Application) may be eligible for Perkins funding.**

**Non-allowable uses of funds:** Perkins grant funds may not be spent on costs associated with writing the application, consumable items, whole-school improvement efforts not directly related to CTE programs, professional development not directly related to needed changes identified in the reVISION process, direct assistance to students (i.e. subscriptions or single-use licenses), or students below grade five. Perkins funds cannot be used to supplant funds. Carefully review the non-allowable uses of funds document found under the Perkins Management Guide link noted above.



[Click here for the Annual Perkins Budget Worksheet Template](#)



## Columbus Area Chamber of Commerce

753 33rd Avenue • Columbus, Nebraska 68601  
Phone: (402) 564-2769 • Fax: (402) 564-2026  
Email: [chamber@megavision.com](mailto:chamber@megavision.com) • Website: [www.thecolumbuspage.com](http://www.thecolumbuspage.com)

Nebraska Department of Education  
301 Centennial Mall South  
P.O. Box 94987  
Lincoln, NE 68509-4987

8-31-2020

Dear Nebraska Department of Education;

Columbus Public Schools enjoys a strong partnership with the Columbus Area Chamber of Commerce and our area businesses. Together, our aim is to be proactive about meeting the workforce needs of our community and to prepare our students for high-paying technical careers which are available in abundance in our community and our state.

Over recent years, the school has fortified a unique alignment and partnership with our businesses, assuring the skills they are teaching will be relevant and needed in the workplace post-graduation. Students are provided with real world, hands-on experiences which directly correlate to the workforce needs of our community.

The Columbus Area Chamber of Commerce wholeheartedly supports Columbus Public Schools in their endeavor to build and enhance their manufacturing, drafting, and engineering labs through the purchase of 3D printers, welding and virtual reality simulators, mechatronics computer software, and an industry standard drafting format printer. We look forward to our continuous partnership with the school and with local businesses to grow their STS programs.

I am pleased to write this letter of support for Columbus Public Schools to be awarded a reVISION Action grant for the purchase of new, industry relevant equipment for their STEM program. If awarded, these funds will ultimately increase our pool of skilled talent, fortify our labor force, strengthen the income potential of our students, sustain our employers, and boost the economy in our great state of Nebraska.

Thank you for your consideration of this grant application.

Sincerely,

A handwritten signature in cursive script that reads "Kara Asmus".

Kara Asmus  
Workforce Programs & Recruitment Director  
Columbus Area Chamber of Commerce



August 31, 2020

Dear Ms. Marzouk,

On behalf of Gilmore & Associates, Inc., I am writing to voice support of Columbus Public School's reVISION Action Grant.

Columbus High School is committed to addressing the skills gap in businesses located in the Columbus community. Focusing on improving the image and raising awareness of STEM careers by developing programs that help young people better understand the career opportunities in their region such as engineering and drafting.

According to a Deloitte Report, students named personal experiences and interests as the number one influence to their career pathway choice. We believe it is imperative that business, industry and education work together to provide students with exposure to a variety of career experiences, such as those included at CHS.

Funds from this grant will help CHS to continue to grow and narrow the skills gap found in our community. We highly encourage you to consider Columbus High School reVISION Action Grant request as an extremely viable project for this grant!

Sincerely,

Keith Gilmore, P.E.  
Gilmore & Associates, Inc.

KLK/kz



*We are proud to be an ISO 9001 registered company.*

Behlen Building Systems

Trident Building Systems

Behlen Country

International & Diversified Products

Behlen Technology & Manufacturing

August 31, 2020

Therese Marzouk  
Nebraska Department of Education  
301 Centennial Mall So. #6  
Lincoln, NE 68508

Dear Ms. Marzouk,

On behalf of Behlen Mfg. Co., I would like to extend our continued commitment to partner with Columbus Public Schools, including support of the **reVISION Action Grant**. Behlen Mfg. Co. has proudly supported and partnered to help build and expand career and technical education (CTE) programs in Columbus Public Schools.

Behlen Mfg. Co., headquartered in Columbus, Nebraska, employs around 750 in the Columbus community. Behlen consists of three diverse business units, including Behlen Building Systems (metal buildings), Behlen Country (the nation's leading manufacturer of livestock equipment), and International and Diversified Products (grain systems, strip joining presses, and custom fabrication).

Behlen is a long time and active partner with Columbus Public Schools, and is a strong proponent of aligning education to industry skills. For Behlen, it is imperative that we have skilled individuals enter our workforce and we have seen the need increase over the past several years. As a result, we have become incredibly involved in local and national efforts to recruit and encourage individuals to enter the manufacturing industry, including hiring a dedicated HR talent development manager to connect with schools and the surrounding communities. This is why Behlen is poised to be a partner with Columbus Public Schools in their application for the reVISION Action Grant. Should Columbus Public Schools be awarded this grant, Behlen will commit to continued support by promoting and advising students interested in the manufacturing sector through apprenticeships, internships, tours, and career awareness activities.

Behlen Mfg. Co. has worked with Columbus Public Schools on grant projects over the years and are confident they will meet their grant deliverables in a cost effective manner and provide an outstanding program that will benefit both education participants and employers statewide.

Sincerely,

Phil Raimondo  
Chairman & CEO  
Behlen Mfg. Co.